

THREE NEW SPECIES OF *Lasiacantha* FROM SOUTHERN INDIA  
WITH A KEY TO THEIR IDENTIFICATION (HETEROPTERA: TINGIDAE)<sup>1</sup>

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Three new macropterous species of *Lasiacantha* on three different species of Acanthaceae have been described as the third, fourth and fifth species of this genus of Tingidae from the Indian region. A key for identification of the four exclusively south Indian species has been given. Relative expansion of the cephalic end of the median carina of the pronotum as a hood, the architecture of the paranotal expansions of the pronotum and the pattern of areolations of the hemelytra are the major diagnostic features of each species. Dense sharp spinosity characterize all species of *Lasiacantha*.

**Key words:** Insecta, Heteroptera, Tingidae, *Lasiacantha justiciarii* sp. nov., *L. peristrophii* sp. nov., *L. ruellii* sp. nov.

### INTRODUCTION

Out of the twenty one species of *Lasiacantha* catalogued by Drake and Ruhoff (1965) in their monograph on the Lace Bugs of the world, only two species – *L. cuneata* and *L. altimitrata* were reported to have been described from India. Of these, only *Lasiacantha cuneata* (Distant) (*Jannaeus cuneatus* Distant 1909) was known to have been described from south India its host plant was not recorded. *Lasiacantha altimitrata* (Takeya) was reported from China and India; on Labiatae. In the present survey, three more species have been discovered from southern India and described. A key to the identification of all the four known south Indian species has been given.

The genus *Lasiacantha* is characterized by the largeness of its size (3.89 to 3.9 mm); presence of five prominent porrect cephalic tuberculate spines (two loreal, a median frontal and two post genal); elytra beset with sharply pointed pedicellate spines; pronotum tricarinate, the median carina expanding cephalad as hood; paranotal expansion and bucculae broadly expanded; hemelytra terminally constricted and differentially pigmented.

1. *Lasiacantha justiciarii* sp. nov.  
(Fig. 1)

Large, testaceous, narrow transverse band traversing middle of subcostal area and another median oblique band on apical sector of elytra; length 3.6 mm, width across pronotum 1.32 mm.

Head, testaceous, armed with five elongately porrect, stramineous, tuberculate spines; antennae moderately elongate, testaceous, densely packed with long, pedicellate, sharply pointed spines, proportionate length of the antennomeres 1:1.2:5.2:1; apical flagellar segment fuscus; eyes ochraceous; antenniferous tubercles moderately robust,

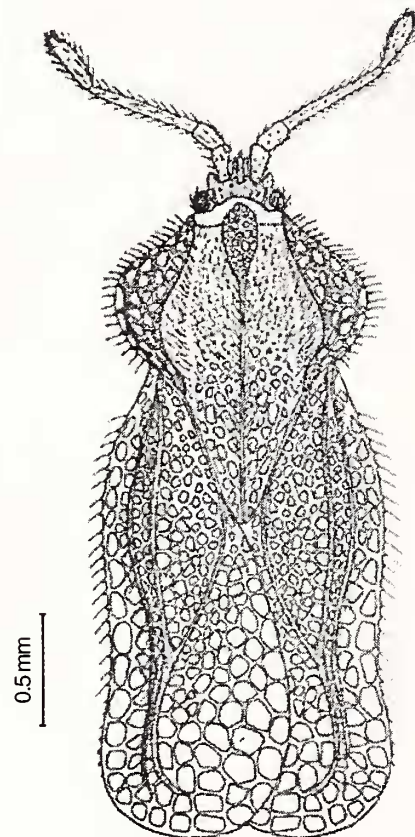


Fig. 1: *Lasiacantha justiciarii* sp. nov.

almost passing scape; rostrum stramineous, apically testaceous, reaching middle of mesosternum; sternal lamina non-areolate; bucculae broadly elongate, biseriate, closely occluding basirostrum.

Pronotum, moderately convex, anteriorly punctate, proscutellum broadly areolate, proscutum tricarinate, median carina biseriate, interrupted midway by abrupt development of median anterior, vertically elevated hump like prominent

hood, anteriorly terminating subapically and posteriorly terminating at posterior tip of proscutellum; lateral earinae elongate, uniseriate, deviating posteriorly to terminate at base of proscutellum; paranotum, broad, four serially areolated, confluent with the lateral margin of the proscutum and strongly reflexed to lie juxtaposed to almost half the lateral area of proscutum on either side; densely spinous marginally, anterolateral areas of pronotum and subapical areas of carinae darkly pigmented.

Hemelytra, extending far behind abdomen, subapically constricted; sub-costal area biseriata, having broad areolae, confluent with post-cubital area; a darkly pigmented band running across middle; radial area moderately broad, triseriate, apically confluent with sutural area; discoidal area broad, multiseriate across middle; sutural area broad, multiseriate, areolae broad, apically infuscated; margins of elytra, media, cubitus and all veins beset with long pedicellate, less sharp spines, rest of the areas of elytra with long non-pedicellate recurved wavy spines; clavus proximally triseriate, distally biseriata, media, darkly pigmented midway; hypocostal lamina uniseriate.

Femur fuscus, fringed with long, pedicellate, porrect spines; tibia, stramineous, beset with long, pedicellate, sharp spines.

**Holotype:** Male (macropterous); locality: Malumichampatty in Coimbatore, Tamil Nadu; host plant: *Justicia simplex* (Acanthaceae), 12.xi.1979; **Allotype:** Female; **Paratype:** sixteen specimens; data same as holotype. Collector M.H.S. Yacoob. Deposited in Livingstone's Collection, Reg. No. 18T, Division of Entomology, Bharathiar University, Coimbatore.

**Etymology:** Named after the host plant.

*Lasiacantha justiciaii* sp. nov. resembles *L. peristrophii* sp. nov. in the architecture of their hemelytra and spinosity; but differs from it by its shorter III & IV antennal segments and the extent of development of antenniferous tubercles, almost passing scape. Presence of biseriata bacculae, biseriata subcostal area and triseriate radial area are yet other delineating features. It can be readily differentiated from *L. ruellii* sp. nov. by the presence of simple (nonbifid) nature of the post-genal pair of cephalic tubercles. It differs from *L. cuneatus* (Distant) by the presence of more compressed pronotal median anterior hood, longer III & IV antennomeres and more prominently incrassate femora.

## 2. *Lasiacantha peristrophii* sp. nov.

(Fig. 2)

Moderately large, stramineous, clothed with non-pedicellate spines, length 3.00 mm and width across pronotum 1.14 mm.

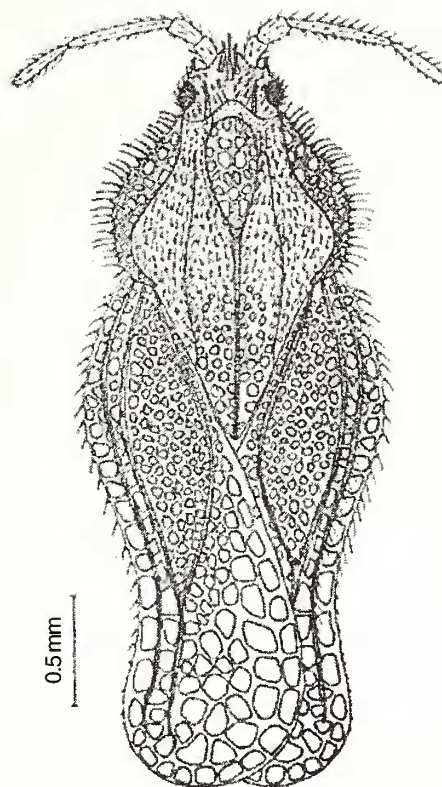


Fig. 2: *Lasiacantha peristrophii* sp. nov.

Head, fuscus, armed with usual five tuberculate spines, median frontal tubercle longest, porrect and post-genal pair forked apically; antennae moderately elongate, stout, testaceous, densely beset with long pedicellate spines, scape and pedicel short, subequal, first flagellar segment  $1\frac{1}{2}$  times longer than terminal segment; proportionate length of antennomeres 1 : 1.2 : 3.4 : 2.3; eyes ferruginous; antenniferous tubercles not passing middle of scape; rostrum not passing middle of mesosternum, stramineous, apically testaceous, fringed with hairs, rostral lamina lining rostral furrow broad, non-areolate; bucculae tetra-seriate, broadly elongate, occluding basirostrum.

Pronotum convex, proscutum punctate, tricarinate, median carina disrupted midway by the anterior, vertically elevated prominent hump-like hood and posteriorly merging with the broadly areolate scutellum; paranotal expansion three areolae deep, vertically deflected.

Hemelytra, passing abdomen, subapically constricted; subcostal area biseriata, cells rectangular, confluent with post-cubital area; a dark pigmented band traversing middle of subcostal area; radial area broad, tetraseriata, confluent with sutural area; discoidal area equally broad, six areolae deep across middle; sutural area broad, a few cells at its apical region infuscated; hypocostal lamina uniseriate; clavus proximally triseriate and distally biseriata; median vein darkly pigmented at middle; femur feebly testaceous, fringed with

long pedicellate blunt spines; leg, segments beyond femur stramineous; tibia proximally brownish.

**Holotype:** Female (macropterous); locality: Andipatti, Madurai District, Tamil Nadu; host plant: *Peristrophe bicalyculata* (Acanthaceae) on 4.v.1981; **Allotype:** male; **Paratype:** nine specimens. Collector: M.H.S. Yacoob, data same as the holotype; deposited in Livingstone's Collection, Reg. No. 19 T, Division of Entomology, Bharathiar University, Coimbatore.

**Etymology:** Named after the host plant.

*Lasiacantha peristrophii* sp. nov. differs from *L. justiciaii* sp. nov. in the presence of tetraseriate broadly elongate bucculae; paranotum three areolae deep; biseriate subcostal area and tetraseriate radial area and by the presence of apically forked post-genal pair of cephalic tuberculate spines. It further differs from *L. ruelii* sp. nov. by the relative length of antennomeres and by the tetraseriate radial area.

### 3. *Lasiacantha ruelii* sp. nov. (Fig. 3)

Moderately large; stramineous; a darkly pigmented band across subcostal area and subapical area of elytra; 3.9 mm long and 1.2 mm broad across pronotum.

Head, stramineous; pubescent, armed with five moderately long, stramineous, porrect cephalic tubercles, median frontal tubercles longest, postgenal pair of tubercles bifid apically; antennae moderately elongate, stramineous, I and II antennomeres short, stout and subequal, first flagellar segment slender, elongate, beset with long pedicellate blunt spines, terminal segment fringed with much elongated pedicellate hairs; proportionate length of antennomeres 1: 0.9: 4.1: 1.8; eyes reddish brown; antenniferous tubercles testaceous, short, not passing middle of scape, beset with long pedicellate spines; rostrum stramineous, apically testaceous, reaching anterior margin of mesosternum; sternal furrow shallow, sternal lamina non-areolate, broad; bucculae broadly elongate, triseriate, pubescent, occluding basirostrum.

Pronotum, pubescent, coarsely punctate, proscutum convex with dense vestiture of long slender hairs; tricarinate, median carina abruptly disrupted at middle by anterior segment developing as broadly areolated hood, occluding middle of head up to anterior margin of eyes, pronotal hood 5-6 rows of areolae deep on either side; lateral carinae narrow, uniseriate, sinuous, posteriorly terminating at origin of scutellum; paranotum broadly expanded, almost vertically reflexed, 5-6 areolae deep at middle, sharply spinous marginally, paranotal margin and median carina testaceous, scutellum broadly and coarsely areolate.

Hemelytra, reaching far beyond the abdomen, subapically constricted; subcostal area triseriate, proximally

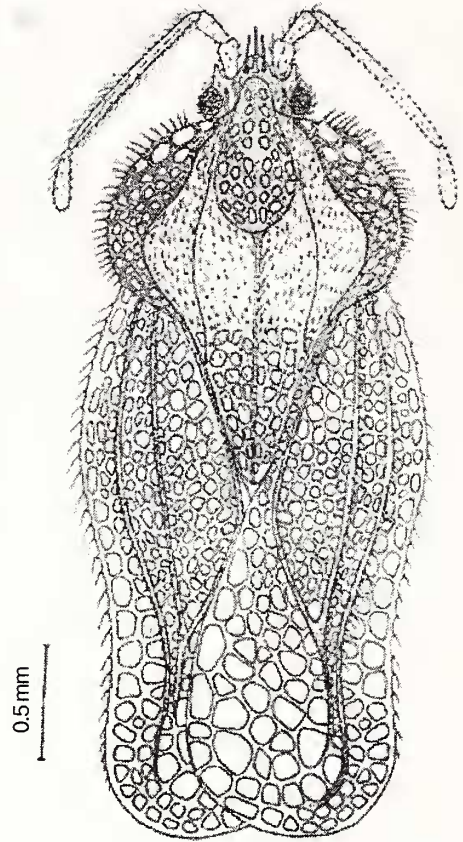


Fig. 3: *Lasiacantha ruelii* sp. nov.

and distally biseriate, confluent with post-cubital area; radial area triseriate, confluent with sutural area; discoidal area six areolae deep across middle; hypocostal lamina uniseriate; clavus proximally triseriate, distally uniseriate; sutural area broadly areolate, 5-6 areolae deep; outer margin of hemelytra, media and cubitus with dense vestiture of long pedicellate, sharply pointed spines; subcostal, radial and discoidal areas pubescent; sutural area sparsely beset with non-pedicellate spines.

Legs, testaceous, femur incrassate, both femur and tibia fringed with long pedicellate, sharply pointed spines.

**Holotype:** Female (Macropterous); locality: Semponvilai, in Kanyakumari District, Tamil Nadu; host plant: *Ruellia prostata* (Acanthaceae). 9.v.1981; **Allotype:** male; **Paratype:** Fourteen specimens; data same as the holotype. Collector: M.H.S. Yacoob. Deposited in Livingstone's collection, Reg. No. 20 T, at the Division of Entomology, Bharathiar University, Coimbatore.

**Etymology:** Named after the host plant.

*Lasiacantha ruelii* differs from *L. justiciaii* sp. nov. in the presence of bifid post-genal pair of cephalic tubercles and antenniferous tubercles not passing middle of scape. It can be readily distinguished from *L. peristrophii* sp. nov. by its triseriate bucculae and triseriate radial area.

NEW DESCRIPTIONS

KEY TO GENUS *LASIANCANTHA*

- 1. Post-genal tuberculate spines apically biramus; antenniferous tubercles not passing middle of scape; paranotal expansions fusing with pronotum, after reflecting vertically upward ..... 2
  - Post-genal cephalic tubercles simple; antenniferous tubercles passing middle of scape; paranotal expansions fusing with pronotum, without vertically reflecting upward ..... 3
- 2. Bucculae triseriate; pronotal lateral carinae uniseriate; paranotal expansion six areolae deep; subcostal and radial areas triseriate; discoidal area six areolae deep ..... *Lasiacantha ruellii* sp. nov.
  - Bucculae tetraseriate; paranotal expansion three areolae deep; radial area four seriate and discoidal area six seriate; tibiae proximally bearing two brown spots .....  
..... *Lasiacantha peristrophii* sp. nov.

- 3. Bucculae broadly areolate and biseriate; pronotal median carina biseriate; lateral carinae uniseriate; paranotum 5-6 areolae deep; subcostal area biseriate; radial area triseriate and discoidal area five seriate ..... *Lasiacantha justiciaii* sp. nov.
  - Paranotum more than six areolae deep; subcostal and radial areas equal and biseriate to triseriate; median carina 4-5 areolae deep ..... *Lasiacantha cuneata* (Distant)

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REFERENCE

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